



The end of wood

SINCE THE dawn of time, wood has been one of the most (if not *the* most) ubiquitous of materials used by man. It's quite possible that civilization, at least as we know it, would not have been possible without this quintessentially utilitarian material. Societies in some parts of the world have broken down when available wood has been exhausted. This same material, which appeared inexhaustible when Europeans came to the New World, has been used and abused to an alarming degree; the end of the supply seems almost to be in sight. It should be obvious to all that we must give serious thought to our future use and management of such a necessary resource. Yet even the official policy of the U.S. government often seems to ignore the fact that wood is certainly not in endless supply.

What can be done to assure the best use of the wood available today, and to guarantee that our children will have the greatest possible supply? For starters, we should limit our usage to the extent possible. Waste not, want not!

Wood may be put to another use after a building has reached the end of its life. Reclaimed timbers from an industrial building are a prime example. The additional labor and expense involved in harvesting the material, transporting and storing it, and preparing it for remanufacturing are a small price to pay for what is often extremely high-quality wood. Factor in that it would otherwise be burned, contributing to global warming, or dumped in already overcrowded landfills, and it becomes an even more attractive option. A barn frame might similarly be given new life, or nails pulled from those old 2 x 4s and 2 x 10s to avoid the use of wood from newly-cut trees.

Those of us with an interest in timber framing are dependent on a supply of wood of a different quality from that on which the average carpenter depends, unless we want to discard solid wood sticks in favor of products manufactured from wood waste and adhesives, or from petrochemicals. Whether wood will be available in the future depends greatly on decisions made by us and by our children.

One increasingly common practice in modern forestry is the harvesting of trees at an extremely young age. I saw a 2 x 4 in a local lumberyard with wane (the under-bark surface of the tree) on all four edges of the piece. That came from an unusually small tree!

Perhaps a lesson in tree growth is in order. We've all seen small trees with many branches close to the ground. A tree gains height not by adding on from the bottom but by adding on near the top, so those branches don't grow up and away from the area where we love to find clear, knot-free wood. Instead, as the crown of the tree grows and the lower branches lose their access to sunlight, they die off and are covered over by new knot-free layers of wood. As long as the tree remains healthy, longer growth means a larger percentage of the clear wood that's more useful for so many purposes. The larger tree, with its larger crown and root system for processing sunlight and minerals from the soil, is able to add more mass each year than a less-efficient, smaller tree. It's helpful, then, to resist the temptation for immediate profit from harvesting young trees, yet landowners are urged to do just that on a regular basis.

Before man interferes in growth patterns in a woodlot, "old-growth" conditions exist. A certain mix of species proves optimal for a given area and eventually becomes the primary or climax species. Since trees aren't harvested regularly, crowded conditions result in slower growth for all trees concerned, which isn't automatically a bad thing. The main reason old growth has desirable

connotations, at least among softwoods, is that this slow growth results in stronger, denser, more durable wood. It also produces wood with a different appearance from faster grown wood from a managed forest.

Careful management of a woodlot shows results in increased yields or higher quality material. Less desirable species can be culled or used for firewood, leaving less competition for the best trees. When trees are removed, care should be taken not to damage those trees that are left or to create soil damage that can lead to erosion or compaction of soil over roots. Skidding logs with horses is regaining favor because this method is gentler to remaining trees and to the soil. Finally, time between harvests, or rotation, can influence short- or long-term profitability.

I've heard it said that in Northeastern hardwood forests at this point in time, wood is growing faster than it is harvested. This may be true, largely because so much formerly cleared and farmed land has become unprofitable and is reverting to an earlier wooded state. The first generation of trees to spring up on such land is generally useless commercially, and in many cases a century or more will pass before the natural succession of species brings a more desirable crop to marketable age.

Particularly in Western forests, the landowner (often the U.S. Forest Service) has come under intense pressure

to harvest more and more trees to maintain employment in the industry and keep mills supplied. Taxpayer money (yours and mine) has been used to subsidize timber sales and create access to ever more remote forest areas, to the extent that the government actually loses more money the more it sells. Never considered dummies, the Japanese in particular have recognized an opportunity and bought up large quantities of the best material for both immediate and later use. Since wood kept under water is preserved, lakes and ponds have been built for storage purposes, and the Japanese have basically created a bank account, with the capital to be withdrawn when enough interest has been earned.

What then can each of us do to assure an adequate supply of wood into the future? To start, reduce our use, and reuse where possible. Much land that could support growth of trees is unused or underused, and trees could be planted and nurtured. If we remove trees or use a quantity of wood, we could decide to plant trees to replace what we've used. We should educate ourselves and our public officials to make wise decisions concerning forest resources. If we're stewards of a piece of land, think in the long term of the best use for the land. Above all, we should limit our use to no more than what is sustainable, so that our children won't curse us for indiscriminate spending of their inheritance.—*Leon Buckwalter*

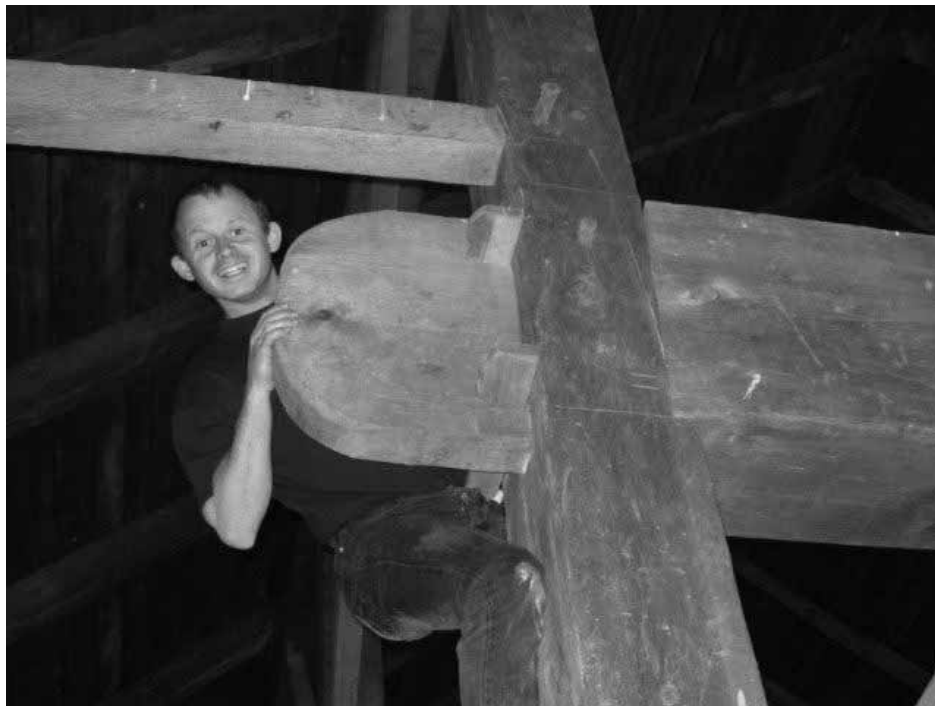


photo Will Beemer

Boris Noël visited the Wemp Barn in New York State while on his April visit to the U.S. to teach at the Western Conference and at Heartwood. He was impressed (and dwarfed) by the anchor beams in the Dutch barn. You rarely find wood like this anymore.